IN THE SPECIFICATION:

The Applicants hereby amend the paragraph starting on page 2, line 6 of the specification as follows:

The publication "Auto & Elektronik" dated 4/2000, pages 19-23, discloses a Hall sensor that includes a complete integrated system, including the actual Hall sensor. The area of application is designed for the voltage range 100µV-1mV at magnetic field strengths of 2-20mT. As a result, Hall sensors of this type are susceptible to offset drifts that may occur in response to changes in temperature and fluctuations in voltage, but which may also occur as a result of mechanical stress which the package, for example, transfers to the chip, or due to other factors. To reduce this offset, a so-called chopper method is provided, also known as the "zero-drift principle." In this method, the current direction of the Hall current through the Hall plate forming the actual sensor element is continually switched. Any corruptions in the measurement signal~~,~~ produced, for example, by geometrical distortions in the Hall plate, are incorporated into the measured value independently of the current direction, but are then either added or subtracted as a function of the current direction. Since both measurements are performed through identical structures having the same stress profile, the offset produced by mechanical stresses of the package is averaged out. With addition of the Hall voltages determined by the two Hall voltages with different directions of current flow, an alternating-voltage component indicates the offset while the direct current indicates the offset-compensated Hall voltage. In the case of subtraction, the reverse is true.

The Applicants hereby amend the paragraph starting on page 4, line 6 of the specification as follows:

In an advantageous approach, not only the position of the current feed points is spatially displaced, but so too is the position of the taps to tap the Hall voltage. One embodiment, during the first measurement <u>of</u> the available five taps, of which the two outer ones are combined, are employed to feed in or feed out the Hall sensor current, or to tap the Hall voltage with offset. In the second measurement, the terminals for the current in-feed and out-feed, and for tapping the Hall voltage, are transposed. As a result, a simple switching of the terminals – which may be implemented by a mechanical or electronic switch – can generate a current flow situation analogous to that found in a known bridge circuit. An especially advantageous aspect here is that the repeated displacement in a second direction, or in the case of the bridge circuit, simply the additional reversal of the current and repeated implementation of the two measurements, may be exploited such that ultimately four individual Hall voltages with offset are determined which may be used to compensate the offset or offset voltage, and to output an offset-free voltage.

The Applicants hereby amend the paragraph starting on page 15, line 11 of the specification as follows:

A system of this type may be described by a bridge of rotationally symmetric design, (i.e., the bridge is composed of resistance regions of equal size). In a system of this type, the vertical Hall voltage is measured at zero current. Using a crosswise configured structure, it is also possible to determine two orthogonal magnetic field that which enable the rotational angle of the magnetic field to be determined. In a preferred embodiment, the current directions of the system are rotated incrementally about small angles $\alpha 1$, $\alpha 2$, $\alpha 3$ to determine the direction of the magnetic field vector B in the plane of the Hall sensor element S using simple intensity comparisons. In addition, the Hall sensor potential can be tapped at measurement points applied perpendicularly to a current flow on the surface in order also to measure a magnetic flux.